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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,255	10/05/2004	Bernardus Hendrikus Wilhelmus Hendriks	NL 020270	5108

24737 7590 01/03/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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BRIARCLIFF MANOR, NY 10510

EXAMINER
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GUPTA, PARUL H

ART UNIT	PAPER NUMBER
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2656

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/510,255	HENDRIKS, BERNARDUS HENDRIKUS WILHELMUS	
	<b>Examiner</b>	<b>Art Unit</b>	
	Parul Gupta	2656	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 10/5/04.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-9 are pending for examination as interpreted by the examiner. The IDS filed on 3/22/05 was considered.

#### ***Specification***

2. The disclosure is objected to because of the following informalities: lack of headings and separate sections.

Appropriate correction is required.

#### ***Claim Objections***

3. Claims 4-9 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martynov et al., US Patent Publication 2003/0058777, in view of Wilson, US Patent 4,643,538 in view of Moskovich, US Patent 6,025,959.

Regarding claim 1, Martynov et al. uses figure 1 to teach a compound objective lens (10) comprising a first lens (14) element and a second lens element (13), wherein the objective lens has a numerical aperture greater than 0.65 (paragraph 0002).

Martynov et al. does not teach that the surface of one of the lens elements must be a mirror, nor does he specify the focus length of the elements or the objective lens.

Wilson uses figure 1 to teach that the first element (6) comprises a mirror surface (8) for internally redirecting a radiation beam (2) passing through the first element (6). Further explanation is given in lines 47-56 of column 3.

Wilson does not give specifics regarding the focal length of the objective lens.

Moskovich teaches that the focal length  $F_1$  of the first element is related to the focal length  $F$  of the objective lens by the relation:  $F_1/F > 2.5$  (column 3, lines 60-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the planar mirror surface of Wilson and the specifics of the focal length as taught by Moskovich into the system of Martynov et al. The use of the planar mirror surface of Wilson will help standardize the output profile of the radiation beam by circularizing the cross-section of the beam, collimating the beam, and correcting the original astigmatism (column 1, lines 56-62; Wilson). The ratio taught by Moskovich serves to correct aperture type aberrations including spherical aberration and coma (column 3, lines 21-26).

Regarding claim 2, Wilson teaches that the mirror surface is a planar mirror surface (8).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martynov et al. in view of Wilson in view of Moskovich as applied to claims 1 and 2 above, and further in view of Arisawa, US Patent 6,016,226.

Martynov et al. in view of Wilson in view of Moskovich teaches all of the limitations of claim 1 and 2.

Martynov et al. in view of Wilson in view of Moskovich does not teach the limitations of claim 3.

Arisawa teaches the focal length F of the objective lens is less than 1 mm in column 4, lines 47-55.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include small focal length of the objective lens as taught by Arisawa into the system of Martynov et al. in view of Wilson in view of Moskovich in order to create a lens with the desired features without deteriorating the spherical aberration, astigmatism or other characteristics (column 1, lines 20-31).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Komma et al., US Patent 5,446,565, and Terao et al., US Patent 5,202,868, both teach the mirror used to redirect a radiation beam. Sasano et al., US Patent 2002/0186476 has the same overall purpose as the applicant. Isono, US Patent 6,927,927 has the given ratio of focal length of the first element in relation to the focal length of the objective lens.

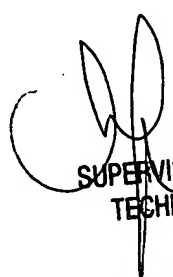
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parul Gupta whose telephone number is 571-272-5260. The examiner can normally be reached on Monday through Thursday, from 8:30 AM to 7 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PHG

  
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12/27/05